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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,840

08/09/2006

Jantje Kromkamp

101137-72

6976

27387 7590 09/16/2008  
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EXAMINER

GONZALEZ, MADELINE

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

09/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,840	<b>Applicant(s)</b> KROMKAMP ET AL.	
	<b>Examiner</b> MADELINE GONZALEZ	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/09/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by

Lawrence et al. (U.S. 5,958,243) [hereinafter Lawrence].

With respect to **claim 1**, Lawrence discloses a filtration system, as shown in Fig. 3, having:

- a micro or ultrafiltration filter 2, wherein the filter 2 is provided with a filter housing having a retentate side 4 and a permeate side 5;
- wherein the retentate side 4 and the permeate side 5 are separated from each other by filter material 3;
- wherein a fluid supply pipe is connected to the retentate side 4 and a permeate discharge pipe to the permeate side 5, as shown in Fig. 3;
- wherein, in the permeate discharge pipe, a shut-off valve 9 operable at a high frequency is provided; and
- wherein means, such as 11, 13, 14, 15, are connected to the permeate side 5 for increasing the pressure in the permeate side 5 when the said shut-off

valve 9 is closed to a value which is higher than the pressure on the retentate side 4 (see col. 5, lines 62-67 and col. 6, lines 1-11).

With respect to **claim 2**, Lawrence discloses wherein the shut-off valve is designed to be opened and closed periodically, wherein the shut-off valve is kept in a closed position so long that a higher pressure is built up on the permeate side than on the retentate side, such that a reversal of the fluid flow in the filter material occurs, wherein the means for increasing the pressure in the permeate side are designed such that, for the rest, a reversal of flow direction of fluid volumes in pipes of the apparatus is prevented (see col. 5, lines 62-67 and col. 6, lines 1-11 of Lawrence).

With respect to **claim 3**, Lawrence discloses wherein the means for increasing the pressure include at least one permeate circulation circuit which is, on the one side, connected, by an inlet, to the permeate discharge pipe at a point downstream of the shut-off valve 9 and, on the other side, by an outlet, to the permeate side 5 of the filter housing, wherein a permeate circulation pump 15 is provided in the permeate circulation circuit, as shown in Fig. 3.

With respect to **claim 4**, Lawrence discloses wherein, upstream of the outlet of the permeate circulation circuit and downstream of the pump, a restriction 2 is included, as shown in Fig. 3.

With respect to **claim 5**, Lawrence discloses wherein, in the permeate circulation circuit, a permeate buffer tank 19 is provided for feeding the permeate circulation pump 15 during the closed condition of the shut-off valve 9, as shown in Fig. 3.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawrence (U.S. 5,958,243) in view of Storkebaum et al. (U.S. 4,749,476) [hereinafter Storkebaum].

Lawrence **lacks** the limitation of **claim 6**, i.e., a retentate circulation circuit.

Storkebaum discloses an apparatus, as shown in Fig. 1, having a retentate circulation circuit, including conduit 22, in order to return the retained substance to the feed supply, if desired to do so. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide the system disclosed by Lawrence with a retentate circulation circuit as taught by Storkebaum in order to return the retained substance to the feed supply, if desired to do so (see col. 3, lines 42-45).

With respect to **claim 7**, Lawrence discloses wherein the outlet of the permeate circulation circuit is connected to a first end of the permeate side 5 of the filter housing, wherein the permeate discharge pipe is connected to a second end of the permeate side 5 of the filter housing, wherein the first end is opposite the second end, such that, on the permeate side 5 of the filter housing, a cross-flow along the filter material 3

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occurs, wherein the cross-flow on the retentate side 4 has the same flow direction as the cross-flow on the permeate side 5, as shown in Fig. 3.

With respect to **claim 8**, Lawrence as modified and Storkebaum discloses wherein, in opened condition of the said shut-off valve, the circulation in both said circulation circuits is such that the pressure drop is substantially equal over the whole surface of the filter material 3, as shown in Fig. 3 of Lawrence.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MADELINE GONZALEZ whose telephone number is (571)272-5502. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Madeline Gonzalez  
Patent Examiner  
September 4, 2008

/Krishnan S Menon/

Primary Examiner, Art Unit 1797